

Please insert the following Abstract:

--ABSTRACT OF THE DISCLOSURE

The invention relates to a method of preparing thick films of $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ ($y = 0.08$) having a critical current density of the order of 10^6 A/cm^2 . The inventive method comprises using an inert carrier gas to send an aerosol, obtained from an aqueous solution of precursors of yttrium nitrate, barium nitrate and copper nitrate ($0.11=\text{FY}=0.28$, $0.46=\text{FBa}=0.58$, $0.2=\text{FCu}=0.37$), having a concentration which is essentially equal to the concentration at saturation, to the surface of a heated substrate whereon it undergoes pyrolysis for between 1 and 5 mn at 800°C and 870°C , followed by oxygen annealing at a temperature which is greater than the pyrolysis temperature by at least 10°C and between 850°C and 880°C for between 1 and 2 hours, and subsequently at $450^\circ\text{C} - 550^\circ\text{C}$ for between 0.5 and 1.5 hours.